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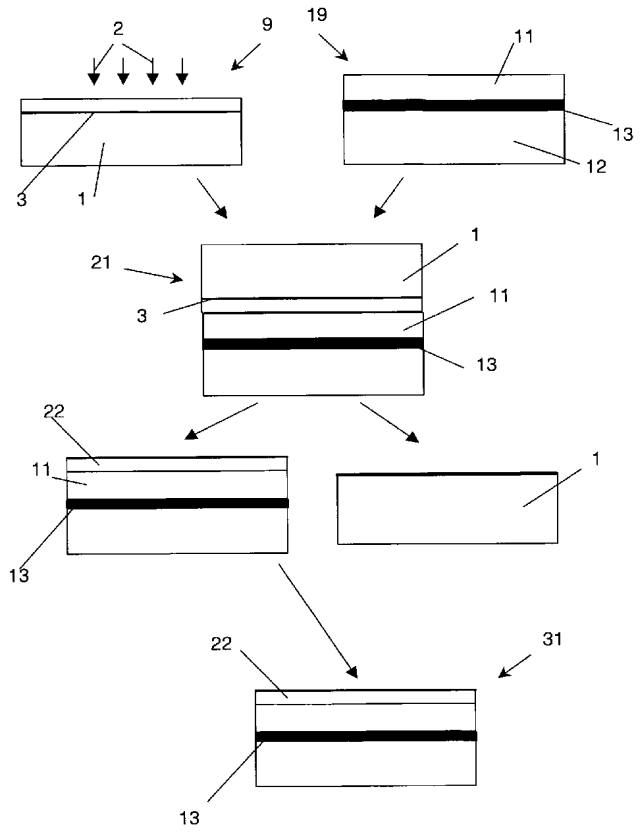
(54) Title: FERROELECTRIC THIN FILMS AND DEVICES COMPRISING THIN FERROELECTRIC FILMS



(57) Abstract: A method of producing a device with a ferroelectric crystal thin film on a first substrate (12) comprises the steps of providing a ferroelectric crystal (1), of irradiating a first surface of said ferroelectric crystal with ions (2) so that a damaged layer (3) is created underneath said first surface, of bonding a block (19) of material including said first substrate (12) to said ferroelectric crystal to create a bonded element (21), wherein an interface is formed between said first surface and a second surface of said block, and of heating the bonded element and separating it at the damaged layer, so that a ferroelectric crystal layer (22) remains supported by the first substrate. By this method, very thin films - down to thicknesses a fraction of a micrometer - of ferroelectric crystals may be fabricated without jeopardizing the monocrystalline structure. According to a preferred embodiment, prior to bonding the block to the second substrate, the first substrate is provided with a electrode layer (13) prior to the bonding. In this way, a thin ferroelectric crystal layer may even be subjected to an applied voltage by electrodes.

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